

The Application of Artificial Intelligence in Insurance

Bayo Adesanya, Chief Digital Officer

"The last two years have seen 9 times more data created than in the entire history of humanity" -

Salim Ismail, Author of "Exponential Organizations"...in 2014



How did we get here?

Periodic Timeline Leading to the Fourth Industrial Revolution

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Today

Industry

Pre-History

History

Humanity advanced by protecting primal needs Humankind then advanced from primal behaviours by developing processes to advance human autonomy

Industry

Industry 2.0

Industry 3.0

4.0 //

We then advanced from initial processes for human autonomy to fully automated systems from mechanisation and mass production which has paved the way to Today I Machine Learning // The Fourth Industrial Revolution // Cyber-physical Systems // The Internet of Things (IoT)



Now we are at a time when humankind is at the prime of autonomy where even higher functioning processes can be allocated to machines. Machine learning is transcending: it is making machine intelligence possible and creating an environment for the functions of singular systems to form unified economies.

It's time to adapt, adopt new technologies and be prepared for our digitally disruptive era.



Tools













100 BC











1784 AD

1.0











Long Long BC

3500 BC

3000 BC

900 AD

1045 AD 1280 AD 1698 AD

1870 AD

1969 AD

2017 AD

Very Near Future

Weapons Wheel

Writing

Watermill Gunpowder

Printing Press

Optical Lens

Steam Engine Mechanisation

Mass Production

Automation Machine Learning

Artificial Intelligence Autonomous Systems

Centralized **Economy**

[1] Mjolner Informatics www.mjolner.dk/tech/realizing-fourth-industrial-revolution

[2] Chris Herd www.medium.com/@ChrisHerd/a-brief-history-of-humanity-and-the-future-of-technology-8d40fe08176





A Minute on the Internet in 2019

Estimated data created on the internet in one minute







What is Insurance?

Insurance is a contract, represented by a policy, in which an individual or entity receives financial protection or reimbursement against losses from an insurance company. This company pools clients' risks to make payments more affordable for the insured.

Insurance policies are used to hedge against the risk of financial losses, both big and small, that may result from damage to the insured or their property, or from liability doe damage or injury caused to a third party.







Life A certain sum of money will be paid to the insured or beneficiaries upon death or permanent disability.

Medical This covers financial costs related to any medical treatments covered under the policy.

Automotive

It covers repairs and other costs incurred should you get into an automobile accident





Home

This gives financial protection for your home against incidents such as fire, burglary, storms and more



Your expenses will be covered should you fall ill, suffer an injury overseas or experience several other travel-related mishaps.



ARTIFICIAL INTELLIGENCE APPLIED ALONG THE INSURANCE VALUE CHAIN

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- Automated data extraction from pdf reports and comparison against various policy combinations
- Automated demand analysis and generating new product offerings
- Machine learning insights to support customer segmentation

- Automated creation of targeted marketing materials & promotions
- Customer personality & tone analysis
- Enabling intelligent customer engagement
- Workload balancing / lead allocation for agents

- Automated product recommendations & natural language guestion answering
- Enabling intelligent self-service product research for
- Intelligent reporting & visualisation
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- Extraction of insights from multiple data sources (incl. unstructured)
- Automated demand analysis & generation of new product offerings
- Enhanced pricing & policy rating, personalization
- Natural language question answering for employees

Underwriting

- Understanding & actioning of external emails & requests
- Automation of call center & webchat service
- Assistance for selfservice queries on policy issuance, endorsements, cancellations & renewals
- Processing of unstructured data

- Real-time Q&A service for FNOL
- Pre-assessment of claims & automated damage evaluation
- Automated claims fraud detection using enriched data analytics
- Prediction of claim volume patterns
- Augmentation of loss analysis

- Contextual analytics & skill contology to score CVs against job descriptions
- Prediction of likelihood candidate will get through selection process
- Prioritization of candidates based on hireability metrics
- Leveraging online assessments

Marketing & Sales & Distribution

Enhanced pricing Customized products and

services

Improved speed shift focus from product to market need New marketing channels with tailored marketing campaigns Increased leads generation Efficient leverage

for cross and upselling effectiveness

Increased service quality Efficient and lean underwriting processes

Improved hit and retention ratios

Increased risk evaluation quality

Policy Administration

Servicina &

Increased efficient administration processes

Increased analytical insights

Claims Management

Higher quality in

assessment, management and administration Improved

Improved predictability of reserves and fraud

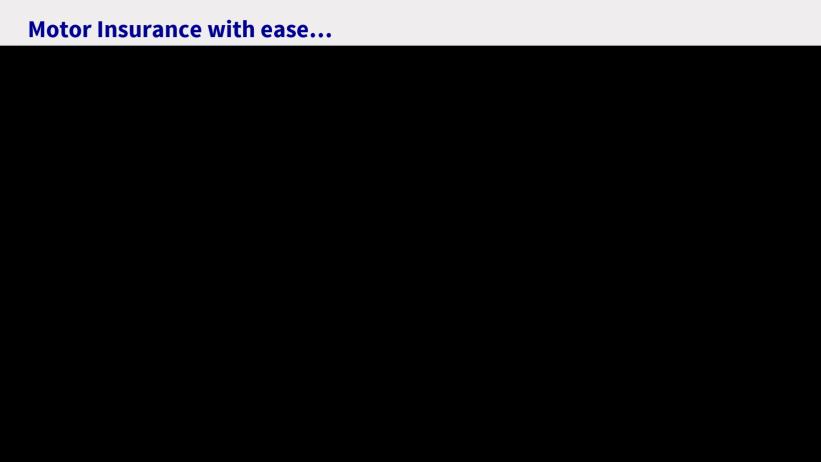
Recruiting

Optimized conversion rates

Improved match rates & offer acceptance



BENEFITS



Some trends to expect in the Age of Robotics



Al solution with positioned drones to identify claims before reporting



Al Solution for Life Underwriting using facial analysis to identify habits like smoking and other lifespan predictors



Al solution that tracks driving patterns for 1 day and automatically assigns a risk rating



Al solution that provides damage-specific repairs cost estimates via photo analysis



Al-powered Application for health monitoring through blood pressure, heart rate & stress level readings



Al solution that monitors activities in homes and escalates risky situations to curb potential claims.



The Future of Insurance







Thank you